

Better building: LEEDing new facilities

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Taking big steps onsite to create energy efficient facilities and improve infrastructure

The Lab is reducing its structural footprint, modernizing infrastructure, and providing workers with safe, energy-efficient facilities.

In the last few years, we've removed nearly 1.5 million square feet of buildings, recycling about 95 percent of components and reducing overall energy consumption.

We're working to make zero waste a reality.

The Lab analyzed energy and water consumption in remaining buildings and installed green technologies, including automated temperature controls and setbacks and retrofits such as cool roofs.

As older but important facilities are refurbished, plumbing, heating/cooling and electrical systems are upgraded to improve efficiency.

When we need to build new high-tech facilities to support ground-breaking science for researchers worldwide, we use sustainable practices to create green buildings that are efficient, minimize waste and costs and improve environmental quality, indoors and out.

Our new Radiological Laboratory Utility Office Building was the first of its kind in the Department of Energy family to achieve both the Leadership in Energy and Environmental Design status and LEED Gold certification from the U.S. Green Building Council.

Our proposed Central Steam Plant Repowering and Distribution System Revitalization would replace an inefficient system and provide 35 megawatts of power annually (the equivalent of powering 4 homes for a year) at a quarter the greenhouse emissions of coal-generated power available in our region.

Our High Performance and Sustainable Buildings Commitment

- Employ integrated design principles
- Optimize energy performance
- Protect and conserve water
- Enhance indoor environmental quality
- Improve energy efficiency and water conservation
- Utilize renewable energy.
- Provide safe, healthy, and productive building environments
- Promote environmental stewardship through responsible land use and material.

Why RLUOB won an award for sustainability

- Building envelope design (orientation, materials and insulation) yielded a 20 percent improvement in energy performance
- Building materials with 24 percent recycled content.
- Roofing comprised of 93 percent highly-reflective materials to reduce heat-island effects
- High efficiency, gas-fired hot water boilers, air-cooled chillers, thermal storage systems and variable frequency drives for compressors, fans and pumps
- Energy efficient lighting for interiors, exteriors, process glove boxes and fume hoods
- Water efficient fixtures resulting in 30 percent reduction in usage
- Low emission paints and carpeting for improved indoor air quality
- Efficient landscaping
- Comprehensive transportation alternatives, including public transportation, bicycle storage and changing rooms, and a refueling station for government vehicles using alternative fuels.